

Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
Feb. 3	Longreach, Australia	NSF; AEC; ONR	Prof. G. Frye (Case Western University)	B.L.S., Mildura (1)	35.850 million; 0.5 m Stratofilm
April 5	Alice Springs, Australia	ONR/ NASA	Dr. W.H.G.Lewin (M.I.T.)	B.L.S., Mildura (1)	46.090 million; 0.5 m two (2) 0.7 mil caps
April 7	Point Barrow, Alaska	ONR	Dr. Hofmann (Univ. of Wyoming)	Univ. of Wyoming	0.009 million, rubber; probe
April 14	Palestine, Texas	ONR	Dr. Pepin (Univ. of Wyoming)	Univ. of Wyoming	0.005 million, rubber; probe
April 15	Palestine, Texas	NASA	Dr. Robert Knollenberg (Univ. of Chicago)	NCAR	.008 million, 1.5 mil
April 15	Palestine, Texas	NASA	Dr. Robert Knollenberg (Univ. of Chicago)	NCAR	.008 million, 1.5 mil
April 15	Alice Springs, Australia	NCAR; NSF; AEC; ONR	Prof. W. Lewin (M.I.T.)	B.L.S., Mildura (1)	36.360 million; 0.5 mi Stratofilm
April 19	Alice Springs, Australia	ONR/ NASA	Dr. W.H.G.Lewin (M.I.T.)	B.L.S., Mildura (1) and NCAR	36.0 million; 0.5 mil, two (2) 0.7 mil caps
	(1) Balloon Launching Station, Mildura, Victoria, Australia				

Pressure float altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
--	--	--	Not reported	Balloon failure ✓
1.4	27.0	1834.0	Controllable x-ray telescope	Successful flight
9.9	2.0	4.5	Water vapor flight	Successful flight
19.0	1.8	4.5	Panametrics water vapor flight	Successful flight
644.0	--	236.5	A simulation test of an instrument designed to measure the particle size (1 to 500 micron size range) and concentration in the atmosphere of Venus	Successful flight
572.0	--	236.5	A simulation test of an instrument designed to measure the particle size (1 to 500 micron size range) and concentration in the atmosphere of Venus	Successful flight
--	--	2118.0	Not Reported	Balloon failure ✓
--	--	--	Controllable x-ray telescope	Balloon failure ✓

Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
April 19	Holloman AFB	AFCRL	Capt. Corbalis (AFCRL)	AFCRL	2.010 million; 1.5 m:
April 20	Holloman AFB	AEC	AEC	AFCRL	0.804 million; 1.5 m:
April 20	Laramie, Wyoming	ONR	Dr. Rosen (Univ. of Wyoming)	Univ. of Wyoming	0.016 million; rubber probe
April 21	Laramie, Wyoming	ONR	Dr. Rosen (Univ. of Wyoming)	Univ. of Wyoming	0.071 million; 0.5 m: probe
April 22	Sioux City, Iowa	AEC	AEC	AFCRL	0.450 million; 1.0 m:
April 24	Sioux City, Iowa	AEC	AEC	AFCRL	0.145 million; 1.5 mi
April 24	Panama, Canal Zone	ONR	Dr. Hofmann (Univ. of Wyoming)	Univ. of Wyoming	0.004 million; rubber probe
April 25	Palestine, Texas	NCAR	Scientific Balloon Facility	NCAR	5.00 million; .75 mil 150 lb. load tapes
April 25	Sioux City, Iowa	AEC	AEC	AFCRL	0.265 million; 1.5 mi
May 2	Holloman, ABF	U.S. Army	Mr. Tremaine (U.S. Army)	AFCRL	0.002 million; dacron
May 3	Pierre, South Dakota	NASA	Drs. Richard Eandi and Zack Osborne (NASA/MSO)	NCAR	20.36 million; .6 mil 2 x .6 mil caps; 250 load tapes

Pressure float altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
11.4	3.0	1036.0	140' RSR parachute test	Successful flight
17.5	6.0	741.0	Pollutant collection	Successful flight
3.9	2.5	2.5	Calibration flight	Successful flight
11.4	2.3	33.0	Dustsonde, temperature	Successful flight
16.7	6.0	473.0	Pollutant debris collection	Successful flight
49.8	7.0	524.0	Pollutant and particulate debris collection	Successful flight
19.0	2.0	4.5	Panametrics water vapor flight	Successful flight
5.20	5.7	978.0	Thermal test of insulators for instrument package	Successful flight
30.3	7.0	526.0	Pollutant and particulate debris collection	Successful flight
840.1	3.0	713.0	Sensor measurements	Tethered system
--	--	2899.0	384 ft <sup>2</sup> passive detector sandwich designed to provide data on the charge and energy spectra of cosmic ray primaries with atomic numbers greater than 60	Operations failure

Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
May 3	Palestine, Texas	NASA	Dr. T. Guili (NASA-MSO)	NCAR	15.5 million; .60 mil; 200 lb. load tapes; 1.0 mil cap
May 3	Holloman AFB	U. S. Army	Mr. Tremaine (U.S. Army)	AFCRL	0.002 million; dacron
May 3	Mildura, Victoria, Australia	AEC	AEC	B.L.S., Mildura (1)	1.250 million; 1.0 mil; stratofilm
May 4	Pierre, South Dakota	NASA	Drs. Richard Eandi and Zack Osborne (NASA/MSO)	NCAR	20.36 million; 2 x .6 mil caps; .6 mil; 250 lb. load tapes
May 4	Palestine, Texas	ONR/ NASA	Dr. C. J. Waddington (Univ. of Minnesota)	NCAR	20.36 million; .6 mil; 2 x 0.6 mil caps; 250 lb. load tapes
May 4	Holloman AFB	U.S. Army	Mr. Tremaine (U.S. Army)	AFCRL	0.002 million; 1.5 mil dacron
May 4	Sioux Falls, South Dakota	N.R.C. England (2)	Dr. P. Fowler (Univ. of Bristol)	Raven Ind.	31.1 million; 0.5 mil; 0.5 mil cap
	(1) Balloon Launching Station, Mildura, Victoria, Australia				
	(2) National Research Council, England				

Pressure float altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
3.04	9.0	1688.0	Observation of the emission and absorption of ultraviolet radiation from single-ionized atoms of magnesium which are located in atmospheres of stars	Successful flight
840.1	6.0	713.0	Sensor measurements	Tethered system
8.7	7.0	477.0	Air sampling, piggyback CSIRO-Sydney - sampling high altitude dust layers	Successful flight
3.00	24.5	3670.0	384 ft <sup>2</sup> of passive detector sandwich designed to provide data on the charge and energy spectra of cosmic ray primaries with atomic numbers greater than 60	Successful flight
3.40	23.0	2316.0	Observation of the chemical composition of the super-very heavy cosmic rays by detecting Cerenkov-radiation with a large area electronic detector	Successful flight
840.1	3.0	713.0	Sensor measurements	Tethered system
4.2	41.0	2219.0	Plastic stack	Balloon failure

Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
May 5	Sioux Falls, South Dakota	ONR	Dr. T. Cline (GSFC)	Raven Ind.	2.94 million; 0.5 mil
May 5	Mildura, Victoria, Australia	AEC	AEC	B.L.S. Mildura (1)	0.450 million; 1.0 mi stratofilm
May 8	Holloman AFB	U.S. Army	Mr. Tremaine (U. S. Army)	AFCRL	0.002 million; dacron
May 9	Sioux Falls, South Dakota	N.R.C. England (2)	Dr. P. Fowler (Univ. of Bristol)	Raven Ind.	11.1 million; .75 mil .75 mil cap
May 9	Palestine, Texas	S.F.S.R. (3)	Dr. D. Huguenin (Geneva Observatory)	NCAR	20.11 million; .5 mil .9 mil cap; 200 lb. 1 tapes
May 9	Holloman AFB	U.S. Army	Mr. Tremaine (U.S. Army)	AFCRL	0.002 million; dacron
May 9	Holloman AFB	AFCRL	G. Sales (AFCRL)	AFCRL	4.850 million; 0.75 m
May 9	Mildura, Victoria, Australia	AEC	AEC	B.L.S. Mildura (1)	0.450 million; 1.0 mi stratofilm
May 9	Chico MAP California	AFCRL	G. Sales (AFCRL)	AFCRL	4.850 million; 0.75 m
May 11	Holloman AFB	U.S. Army	Mr. Tremaine (U.S. Army)	AFCRL	0.002 million; dacron
	(1) Balloon Launching Station, Mildura, Victoria, Australia				
	(2) National Research Council, England				
	(3) Swiss Foundation for Scientific Research, Switzerland				

Pressure float altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
3.5	29.9	543.0	Inter-calibration flight 4 cosmic ray detectors	Successful flight
21.8	6.8	683.0	Air sampling - piggyback CSIRO - Sydney - dust sampling	Successful flight
840.1	5.0	713.0	Sensor measurements	Tethered system
4.5	87.0	1820.0	Plastic Stack	Successful flight
2.09	10.6	1175.0	Ozone variation measurements; UV measurements of stars (photometric and photographic)	Successful flight
840.1	5.0	713.0	Sensor measurements	Tethered system
4.8	30.0	800.0	Atmospheric frequency propagation	Successful flight
27.6	6.2	760.0	AEC sampling - piggyback CSIRO-Sydney - dust sampling	Successful flight
4.8	35.0	776.0	Atmospheric frequency propagation	Successful flight
840.1	5.0	713.0	Sensor measurements	Tethered system



Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
May 11	Mildura, Victoria, Australia	AEC	AEC	B.L.S., Mildura (1)	0.290 million; 1.5 mil
May 12	Holloman AFB	AFCRL	G. Sales (AFCRL)	AFCRL	4.850 million; 0.75 mil
May 12	Chico MAP California	AFCRL	G. Sales (AFCRL)	AFCRL	4.850 million; 0.75 mil
May 13	Palestine, Texas	NASA	Dr. T. Parnell (NASA/MSFC)	NCAR	11.6 million; .7 mil; .9 mil cap; 300 lb. load tapes
May 13	Palestine, Texas	Max- Planck Instit.	Dr. D. Lemke (Max-Planck Institute)	NCAR	3.0 million; .75 mil; 150 lb. load tapes
May 14	Sioux Falls, South Dakota	N.R.C. England (2)	Dr. P. Fowler (Univ. of Bristol)	Raven Ind.	11.1 million; .75 mil cap; 0.6 mil
May 14	Sioux Falls, South Dakota	N.R.C. England (2)	Dr. P. Fowler (Univ. of Bristol)	Raven Ind.	11.1 million; 0.6 mil; .75 mil cap
May 14	Palestine, Texas	NASA/ ONR	Dr. R. Stephen White (Univ. of California at Riverside)	NCAR	15.0 million; .7 mil; 2 x .7 mil caps; 300 lb. load tapes
May 15	Holloman AFB	U.S. Army	Mr. Tremaine (U. S. Army)	AFCRL	0.002 million; dacron
	(1) Balloon Launching Station, Mildura, Victoria, Australia				
	(2) National Research Council, England				

Pressure float altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
44.4	5.5	805.0	AEC sampling - piggyback CSIRO - Sydney - dust sampling	Successful flight
104.0	2.0	800.0	Atmospheric frequency propagation	Successful flight
3.9	14.0	776.0	Atmospheric frequency propagation	Successful flight
4.60	7.1	2134.0	Observations of cosmic rays from $z = 1$ to $z = 30$ by the use of a cosmic ray telescope	Successful flight
6.4	6.7	875.0	Measurement of the surface brightness of zodiacal light and the Milky Way	Successful flight
3.9	69.1	1509.0	Plastic stack	Successful flight
2.9	85.0	1564.0	Plastic stack	Successful flight
4.00	30.2	2566.0	Detector for solar neutrons and albedo neutrons, heavy ion experiment and a pulsed x-ray detector	Successful flight
840.1	3.0	713.0	Sensor measurement	Tethered system

Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
May 16	Laramie, Wyoming	ONR	Dr. Rosen (Univ. of Wyoming)	Univ. of Wyoming	0.071 million; 0.5 mil; probe
May 16	Laramie, Wyoming	ONR	Dr. Rosen (Univ. of Wyoming)	Univ. of Wyoming	0.006 million; rubber; probe
May 16	Sioux Falls, South Dakota	ONR	Dr. Ormes (GSFC)	Raven Ind.	33.1 million; 0.9 mil; two (2) 0.9 mil caps
May 19	Palestine, Texas	NASA	Dr. G. J. Fishman and Dr. T. Parnell (NASA/MSFC)	NCAR	10.6 million; .7 mil; .8 mil cap; 300 lb. load tapes
May 19	Laramie, Wyoming	ONR	Dr. Rosen (Univ. of Wyoming)	Univ. of Wyoming	0.002 million; kaysam; probe
May 23	Holloman AFB	Univ. of Denver	Dr. Murcray (Univ. of Denver)	AFCRL	2.010 million; 1.5 mil
June 4	Palestine, Texas	NASA	Dr. K. Anderson (Univ. of California, Berkeley)	NCAR	10.6 million; .5 mil; .7 mil cap; 150 lb. load tapes
June 5	Eielson AFB, Alaska	AEC	AEC	AFCRL	0.450 million; 1.0 mil
June 5	Eielson AFB, Alaska	AEC	AEC	AFCRL	0.145 million; 1.5 mil

Pressure float altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
10.9	2.0	33.0	Dustsonde, temperature	Successful flight
16.5	2.0	5.0	Komhyer ozone, panametrics water-vapor, temperature flight	Successful flight
4.1	4.3	3566.0	Cosmic ray	Premature termination due to faulty back-up timer partial success
4.45	20.1	1999.0	Observation of pulsed and continuous radiation from the Crab Nebula in the energy range from 0.2 to 10 MEV using a newly developed gamma ray telescope	Successful flight
19.9	2.0	4.5	Calibration flight	Successful flight
16.7	6.0	2221.0	Infrared measurements	Successful flight
2.55	7.98	916.0	Large area, low background, scintillation x-ray detector to search for x-rays from Celestial objects.	Successful flight
18.6	5.0	625.0	Pollutant debris collection	Successful flight
50.7	6.0	588.0	Pollutant and particulate debris collection	Successful flight

Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
June 6	Palestine, Texas	NCAR	Dr. D. Ehhalt (LAS/NCAR)	NCAR	1.5 million; .70 mil; 200 lb. load tapes
June 6	Eielson AFB, Alaska	AEC	AEC	AFCRL	0.265 million; 1.5 mil
June 6	Longreach, Australia	AEC	AEC	B.L.S., Mildura (1)	0.450 million; 1.0 mil stratofilm (R)
June 7	Longreach, Australia	AEC	AEC	B.L.S., Mildura (1)	0.450 million; strato- film (R)
June 7	Holloman AFB	NASA	Mr. Korn (AFCRL)	AFCRL	0.250 million; 0.5 mil
June 9	Longreach, Australia	AEC	AEC	B.L.S., Mildura (1)	0.289 million; 1.5 mil
June 10	Palestine, Texas	NASA	Dr. L. Peterson (Univ. of California, San Diego)	NCAR	15.0 million; .6 mil; 300 lb. load tapes; 2 x 0.6 mil caps; reefing sleeve removed
June 15	Holloman AFB	NASA	Mr. Korn (AFCRL)	AFCRL	0.250 million; 0.5 mil
June 16	Palestine, Texas	NCAR/ SBF	NCAR/SBF	NCAR	.416 million; 1.0 mil; 250 lb. load tapes
	(1) Balloon Launching Station, Mildura, Victoria, Australia				

Pressure float altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
11.0	1.8	801.0	Air sampling system designed to collect eight 4-liter air samples in evacuated stainless vessels at selected altitudes during controlled payload descent	Successful flight
31.2	6.0	504.0	Pollutant and particulate debris collection	Successful flight
17.1	7.0	461.0	AEC H/A sampling - piggyback - CSIRO photographing high level dust particles	Successful flight
27.6	6.2	774.0	AEC H/A sampling - piggyback - CSIRO photographing high level dust particles	Successful flight
5.5	5.0	32.0	Stratospheric wind profile	Successful flight
44.0	5.0	777.0	Piggyback - CSIRO - High altitude dust photographing	Successful flight
2.70	9.23	1162.0	X-ray observations of the spectrum and time variability of several x-ray sources	Successful flight
4.5	6.0	29.0	Stratospheric wind profile	Successful flight
21.1	8.17	539.0	Test of the new Consolidated Instrument Package and Computer Controlled Ground Station	Successful flight

Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
June 17	Palestine, Texas	NRL	Dr. H. Smathers (N.R.L.)	NCAR	36.36 million; .5 mil; 2 x .7 mil caps; 250 lb. load tapes
June 19	Palestine, Texas	NASA/ GSFC	Dr. Axel Brisker Dr. Elihu Boldt (GSFC)	NCAR	10.575 million; .5 mil; .7 mil cap; 300 lb. load tapes
June 19	Holloman, AFB	NASA	Mr. Korn (AFCRL)	AFCRL	0.250 million; 0.5 mil
June 20	Laramie, Wyoming	ONR	Drs. Rosen, Hofmann, Pepin (Univ. of Wyoming)	Univ. of Wyoming	0.004 million; rubber; probe
June 22	Palestine, Texas	NASA	Dr. L. Peterson (Univ. of California, San Diego)	NCAR	11.1 million; .75 mil; .75 mil cap; 250 lb. load tapes
June 23	Palestine, Texas	NASA	Dr. W. Hoffmann (NASA/GISS)	NCAR	2.0 million; 1.0 mil; 300 lb. load tapes
June 25	Laramie, Wyoming	ONR	Dr. Rosen, Hofmann, Pepin (Univ. of Wyoming)	Univ. of Wyoming	0.001 million; rubber; probe
June 26	Laramie, Wyoming	ONR	Drs. Rosen, Hofmann, Pepin (Univ. of Wyoming)	Univ. of Wyoming	0.003 million; rubber; probe
June 26	Laramie, Wyoming	ONR	Drs. Rosen, Hofmann, Pepin (U. of Wyoming)	Univ. of Wyoming	0.106 million; 0.7 mil; probe

Pressure float altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
1.45	11.25	1525.0	Study of x-rays emitted by pulsars in regions of the Crab Nebula and the Virgo Cluster	Successful flight
2.55	6.25	1021.0	Measurement of temporal variations in the 20-80 KEV x-ray flux from Cygnus X-1	Successful flight
5.2	5.0	29.0	Stratospheric wind profile	Successful flight
10.9	2.5	3.0	Calibration flight	Successful flight
3.05	7.38	1281.0	X-ray observations of the spectrum and time variability of several x-ray sources	Successful flight
12.5	12.41	1386.0	Twelve (12) inch infrared telescope for observing galaxies; infrared stars and interstellar dust at a wavelength of 100 microns	Successful flight
48.8	1.5	2.5	Windsonde	Successful flight
33.4	2.5	6.0	Water vapor, ozone	Successful flight
13.1	2.2	73.0	Dustsonde, impactor, temperature	Successful flight



Date (1972)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
June 27	Palestine, Texas	NCAR/ SBF	NCAR/SBF	NCAR	3.0 million; .75 mil; 150 lb. load tapes
June 27	Laramie, Wyoming	ONR	Drs. Rosen, Hofmann, Pepin (Univ. of Wyoming)	Univ. of Wyoming	0.002 million; rubber; probe
June 27	Chico MAP California	AFCRL	Major Burnett (AFCRL)	AFCRL	0.803 million; 2.0 mil
June 28	Palestine, Texas	NASA	Dr. W. Hoffmann (NASA/GISS)	NCAR	2.0 million; 1.0 mil; 300 lb. load tapes
June 28	Holloman AFB	Univ. of Denver	Dr. Murcray (AFCRL)	AFCRL	5.770 million; 2.0 mil
June 28	Laramie, Wyoming	ONR	Drs. Rosen, Hofmann, Pepin (Univ. of Wyoming)	Univ. of Wyoming	0.106 million; 0.7 mil; probe
June 29	Holloman AFB	AFCRL	AFCRL	AFCRL	0.803 million; 2.0 mil

Pressure Altitude (mb)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
4.85	8.18	541.0	Test of a new Consolidated Instrument Package and Computer Controlled Ground Station	Successful flight
28.9	2.0	3.0	Windsonde	Successful flight
17.2	6.0	613.0	Transponder test	Successful flight
11.9	11.77	1386.0	Twelve (12) inch infrared telescope for observing galaxies; infrared stars and interstellar dust at a wavelength of 100 microns	Successful flight
22.2	4.0	3491.0	IR atmospheric emission study	Successful flight
13.1	4.0	78.0	Dustsonde, impactor, temperature	Successful flight
15.8	5.0	1460.0	Balloon profile test	Successful flight